

# SEQUENCE LISTING

<110> Schuetz, Ekkehard  
 Urnovitz, Howard B.  
 Chronix Biomedical, Inc.

<120> Diagnostic Detection of Nucleic Acids

<130> 018651-000320US

<140> US 10/115,278

<141> 2002-04-01

<150> US 60/280,523

<151> 2001-03-30

<160> 36

<170> PatentIn Ver. 2.1

<210> 1

<211> 288

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluJ consensus  
 sequence

<400> 1

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ggccgggagc ggtgggtcac gcctgtaatc ccagcacttt gggaggccga ggcgggagga 60
tcacttgagc ccaggagttc gagaccagcc tgggcaacat agtgaaaccc cgtctctaca 120
aaaaatacaa aaattagccg ggcgtggtgg cgcgcgcctg tagtcccagc tactcgggag 180
gctgaggcag gaggatcgct tgagcccggg aggtcgaggc tgcactgagc cgtgatcgcg 240
ccactgcact ccagcctgcg cgacagagcg agaccctgtc tcaaaaaa 288
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<210> 2

<211> 288

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluSx consensus  
 sequence

<400> 2

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ggccgggagc ggtgggtcac gcctgtaatc ccagcacttt gggaggccga ggcgggagga 60
tcacctgagg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc cgtctctact 120
aaaaatacaa aaattagccg ggcgtggtgg cgcgcgcctg taatcccagc tactcgggag 180
gctgaggcag gagaatcgct tgaacccggg aggcggaggt tgcactgagc cgagatcgcg 240
ccactgcact ccagcctgcg cgacagagcg agactccgtc tcaaaaaa 288
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<210> 3

<211> 289

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluSq consensus  
sequence

<400> 3

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ggccgggagc ggtgggtcac gcctgtaatc ccagcacttt gggaggccga ggcggggtgga 60
tcacctgagg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc cgtctctact 120
aaaaatacaa aaattagccg ggcgtggtgg cggcgccctg taatcccagc tactcgggag 180
gctgaggcag gagaatcgct tgaacccggg aggcggaggt tgcactgagc cgagatcgcg 240
ccactgcact ccagcctgcg caacaagagc gaaactccgt ctcaaaaaa 289
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<210> 4

<211> 289

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluSp consensus  
sequence

<400> 4

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ggccgggagc ggtgggtcac gcctgtaatc ccagcacttt gggaggccga ggcgggcgga 60
tcacctgagg tcgggagttc gagaccagcc tgaccaacat ggagaaaccc cgtctctact 120
aaaaatacaa aaattagccg ggcgtggtgg cgcgtgcttg taatcccagc tactcgggag 180
gctgaggcag gagaatcgct tgaacccggg aggcggaggt tgcgctgagc cgagatcgcg 240
ccattgcact ccagcctgcg caacaagagc gaaactccgt ctcaaaaaa 289
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<210> 5

<211> 285

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluSc consensus  
sequence

<400> 5

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ggccggggcgc ggtgggtcac gcctgtaatc ccagcacttt gggaggccga ggcgggcgga 60
tcacgaggtc aagagatcga gaccatcctg gccaacatgg tgaaaccccg tctctactaa 120
aaatacaaaa attagctggg cgtggtggcg gcgcctgta gtcccagcta ctcgggaggc 180
tgaggcagga gaatcgcttg aacccgggag gcggaggttg cactgagccg agatcgcgcc 240
actgcactcc agcctgccga cagagcgaga ctccgtctca aaaaa 285
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<210> 6

<211> 287

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluY consensus  
sequence

<400> 6

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ggccggggcgc ggtgggtcac gcctgtaatc ccagcacttt gggaggccga ggcgggcgga 60
tcacgaggtc aggagatcga gaccatcctg gctaacacgg tgaaaccccg tctctactaa 120
aaatacaaaa aattagccgg gcgtggtggc gggcgccctgt agtcccagct actcgggagg 180
ctgaggcagg agaatggcgt gaacccggga ggcgagctt gcactgagcc gagatcgcgcc 240
cactgcactc cagcctgctc gacagagcga gactccgtct caaaaaa 287
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<210> 7  
<211> 287  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluYa5  
consensus sequence

<400> 7  
ggccgggcg c ggtggctcac gcctgtaatc ccagcacttt gggaggccga ggcgggcgga 60  
tcacgaggtc aggagatcga gaccatcccc gctaaaacgg tgaaaccccc tctctactaa 120  
aaatacaaaa aattagccgg gcgtagtggc gggcgctgt agtcccagct acttgggagg 180  
ctgaggcagg agaatggcgt gaacccggga ggcggagctt gactgagcc gagatccccg 240  
cactgcactc cagcctgcgc gacagagcga gactccgtct caaaaaa 287

<210> 8  
<211> 286  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluYa8  
consensus sequence

<400> 8  
ggccgggcg c ggtggctcac gcctgtaatc ccagcacttt gggaggccga ggcgggcgga 60  
tcacgaggtc aggagatcga gaccatcccc gctaaaacgg tgaaaccccc tctctactaa 120  
aactacaaaa aatagccggg cgtagtggcg ggcgcctgta gtccatagcta cttgggaggc 180  
tgaggcagga gaatggcgtg aacccgggag gcggagcttg cactgagcc agatccccgc 240  
actgcactcc agcctgcgcg acagagcgag actccgtctc aaaaaa 286

<210> 9  
<211> 294  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:AluYb8  
consensus sequence

<400> 9  
ggccgggcg c ggtggctcac gcctgtaatc ccagcacttt gggaggccga ggcgggtgga 60  
tcatgaggtc aggagatcga gaccatcctg gctaacaagg tgaaaccccc tctctactaa 120  
aaatacaaaa aattagccgg gcgcgggtggc gggcgctgt agtcccagct actcgggagg 180  
ctgaggcagg agaatggcgt gaacccggga agcggagctt gactgagcc gagattgcgc 240  
cactgcagtc cgcagtccgg cctgcgcgac agagcgagac tccgtctcaa aaaa 294

<210> 10  
<211> 578  
<212> DNA  
<213> Bos sp.

<220>

<223> normal cow "180" clone # 180T7REV

<220>  
 <221> modified\_base  
 <222> (1)..(578)  
 <223> n = g, a, c or t

<400> 10  
 gagctcggat ccactagata acrgccrcca gtgtgctgga attcgccctt magcagtggt 60  
 aacaacgcag agtacttttt tttttttttt tttttttttt ggacatttya ttaktatcar 120  
 gactkkttag gaacaagatg aactgacat gggtnatca tcccmcagt tagaaagtac 180  
 taagctttat ctgtttcctt ctcaggccaa tctctacctc tgcattagat atgaagacat 240  
 ctttcttccc attcctacca raaggaacat ttaagactat ttaamatgca ttgcttctgt 300  
 tgggtttaca agtattggct aggcactatk taacggcgaa ctttagagag ggaaaragtg 360  
 gcagttacta ttggcaaatt atcaacctat gtgcagaatc cctgctgaat catttamata 420  
 ttrtcwcata cttatccccg cgtactctgc gttgttcacc mctgctttaa gggggcaawt 480  
 tctacnnatn ycccccccc ggggggccgc ncngnncntn matcgggggg ccmaattsc 540  
 ccctnnngnr agbtctana acaannccgc gsgsgscg 578

<210> 11  
 <211> 363  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> normal cow "180" clone # 180T9REV

<220>  
 <221> modified\_base  
 <222> (1)..(363)  
 <223> n = g, a, c or t

<400> 11  
 tctcngatca ctanttcggc cgycantttg ctngawttcg cccttmagca gtggtaacaa 60  
 cgyagagtay tttttttttt tttttttttt nttttwhcaa tyattggaty thcgnragwt 120  
 gtttcgctag aattatcacc attgtyatat tcaaaacyaa taakkttay waagtaattg 180  
 tyacttacag cgncaattka ttcttttgca wctaaattgt tttcaatkat tacwtctttt 240  
 atttthttca ttwtttcgtw ccctttattc mtaccttttda ttttyttwwg gtcttccatc 300  
 ttttangccc ytnntckgtn taaaggttct agnggatctt cgtaaatttt ttgttttttt 360  
 ttt 363

<210> 12  
 <211> 645  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> normal cow "180" clone # 180T12REV

<220>  
 <221> modified\_base  
 <222> (1)..(645)  
 <223> n = g, a, c or t

<400> 12  
 gagctcggat ccactantaa cggccgccag tgtgctggaa ttgcgcccta agcagtggtg 60  
 acaacgcaga gtactttttt tttttttttt tttttttttt tcaatcattg gttcttcgtg 120  
 aratttttcg tcaaaattat caccattgtm atattcaaaa ccaataaggt taacaaagta 180  
 attkctactt acagcgtcaa tagatacttt tgcaactaaa tgggtttaca tgataacatc 240  
 tgtaatttta ttcattgatc cgtaccattt attcatacct ttgatttctt taaggatcatc 300  
 catcggtaaa gcacctaaac gatataaagg ttcagtgaac ttcgcaaatt ccatgaaatt 360

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tgtatcttct ggattgaatg ttgatacaaa tktttcgttc agtggaattt ttccncttn 420
yaanggnenn gannaaaaag ntngccttc aataccatca attncaaaaa aaagnacanac 480
ngactgtata aagcmcgac cactgcnngn tanaacnnga aaangttttt tyctaagttt 540
catcmcagtc aanatnnanc gaaagggtgt ttngncannn tcgyvsgaan ngggggcccn 600
gnnnnnnnac cnamnncnnn gnnnggaaan aaaaamccam cccgg 645

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<210> 13
<211> 374
<212> DNA
<213> Bos sp.

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<220>
<223> normal cow "180" clone # 180T18REV

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<220>
<221> modified_base
<222> (1)..(374)
<223> n = g, a, c or t

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<400> 13
cggatccact agtaacggcc gccagtgtgc tggaattcgc ccttaagcag tggtaacaac 60
gcagagtacg cgggaaaaaa aaaaaaaaaa aaaavaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaatwaaaaa awwaaaaaraa ttrtgagccg cattantnnn nntttntnnn ntatwtnttt 180
nnnnnnnnnn tntttttttt tnaaaattnt tcycccbtt nntcmcyntt ggggkkgggg 240
gttttctctc cttttccctt ttttttnggg gcttttntnn nnnnnnnnnn tgggcsgecyk 300
cccaggggcs scgcgggtnt tntnnttcca nnnnnggggg gtnttgnnna tttttgtgct 360
bttnnnnnt nccc 374

```

```

<210> 14
<211> 801
<212> DNA
<213> Bos sp.

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<220>
<223> normal cow "180" clone # 180T19REV

```

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<220>
<221> modified_base
<222> (1)..(801)
<223> n = g, a, c or t

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<400> 14
cggatccact agtaacggcc gccagtgtgc tggaattcgc ccttmagcag tggtaacaac 60
gcagagtwtc tttttttttt tttttttttt ttttttttat ycacttctcc aaaaagaaga 120
atgattaamt ttatttagaa taataaacia atgaaattga tctttactta gatctcggcc 180
aattcacgga gacgamgaac agtggaacgg acartggcag carcagtagt ggagacgggtg 240
taarcaccac cagccatggg cttcttacia cccttacct tccagatacc aacagcggta 300
csttgnacag catccttwcc acagaaggta caagtgtagg tggaatkttg agtgatttcc 360
atcatcttga cagtctttct gggagaggca ccataacgga gtaccgtatt taccgggtgat 420
tccsccttct ttaktkcgct ttgccatttt agattaaata ccaaagagga gccccgcgta 480
ctctgcgttg ttaccactgc ttaaggggag aaattctaca gatttmcttc acnctggggg 540
cgctcgnagc ntacatatag ngggcaccat ttccccctat nnannntcan tatnacnnnn 600
cnnnggggag ggcggkgggk ccagcgkcat nntcaggann cccctgggcr ttncennnw 660
ttnttcgcct ttggagannn ntcccccttt ttagcnnnt tcggcggtta ttarccgagn 720
ggaggccmsc cccgcgtcgc cctcamcac acngttacgc gccatnnttg gagcsnatg 780
ccgcgcgccc wttnggcgcg c 801

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<210> 15  
 <211> 801  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> normal cow "180" clone # 180T21REV

<220>  
 <221> modified\_base  
 <222> (1)..(801)  
 <223> n = g, a, c or t

<400> 15  
 gttcnggccg nctnccgttg gtggctntat gnttccatst gsgtccctgc tnttnccgcc 60  
 agtgctctcc gtgttttggt ntcccncccg ctctgbacaa aasaaagcca aacatcaaaa 120  
 ggccggcnnt gentaaagcc aacnatanag ccctctctcn tccgtcnncg ccgtncennng 180  
 cnntgcggen ngccckcngcg gngnnnnctc tgcgggnntcn tgcgggnngn ctnttttttc 240  
 tatgtgccc cgcctctngc cagcagtntn tntnctcnn ttctggcctc tttcttgcn 300  
 ttttctttgt ggtcnctttt cckgccnttn ncccttntck tncnctctc tcttctctc 360  
 ctctctctct tctctttctc tctckcttcg cntentnntn tntnntntnn ncgncgcctt 420  
 gctttgnttt nttttgtcgg nttctgtgt nttntgttn tggggntttg ntntcctgc 480  
 ntescntttc cncctttgtg ggncttttg cngttttgt nnyncngtgt gtntccntgg 540  
 gcnttgnnnc gtnnnntgt tsnyctntct cnskttnynn ynnynnnnc tttntctntt 600  
 nnnctttgct ntcgctgtsn gnetgctstn gttsntgncg ctctntttct ttgtntttns 660  
 nttttctctn ctctctcttc tcnctcgtcg ngnsnsnnnc tctctctctn ygtgtgnync 720  
 ctgtgtncck ctctgtctgn tnttctgctk cncnnttttt nccgctntgt nntnttttnc 780  
 cyctctctc tntntttgtn n 801

<210> 16  
 <211> 590  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> normal cow "180" clone # 180T22REV

<220>  
 <221> modified\_base  
 <222> (1)..(590)  
 <223> n = g, a, c or t

<400> 16  
 gtwaaggcga mtaccgatgg wggmtntatg attccatgag ggctacctga caaatnccgc 60  
 mgatgactca aagaanataa aannnaan nnaagkaba tttttcgarc ggcctrctcn 120  
 ttggccttga cnatataatn ggacagaaaa taaymmmyct agaaamatmc mcacnagata 180  
 gcctwtgant tttcgccasm mycccccyac gcgaaracgc anngcggggc cgaccggcga 240  
 ganggcatcc ggakrggmcc caccatgcan gggggtatgc cckgaggggn tnacacgctg 300  
 ggacantttg gccggaaggc cctgggggga atgaagaaaa caacngcaaa gmatgggcca 360  
 ggaaagrgan ggannggmga ntcccaarcn aaagatwwcc gcatarntga ntttaannnt 420  
 tccmgaaaaa ccccccnan aamcctccaa ccaaccgatc nnaaggcaag cangaagggr 480  
 cgatngccgg ggggtrtacg aggtgtnnnn ccgcgatgaa cctatttayc cggakaktaac 540  
 sggncgsgca atttttggka agntctccaa aamaaacaat ttggtccaag 590

<210> 17  
 <211> 504  
 <212> DNA  
 <213> Bos sp.

<220>  
<223> normal cow "180" clone # 180T28REV

<220>  
<221> modified\_base  
<222> (1)..(504)  
<223> n = g, a, c or t

<400> 17  
gagctcggat ccactagtaa cggccgccag tgtgctggaa ttcgccctta agcagtggta 60  
acaacgcaga gtacttttkt twtttttttt tttaantttc aaagtaaagg tacctgggtc 120  
cctgctgccg gaacaacaga tcaccaagag gaaagaccca gcaagacagw actcgccgtg 180  
aggcanccgc ctgtccaggt cmaagggtcca amwamgagct ttttaactgc aacaacttta 240  
atatacgcta ttggagctgg aatwaccgcg gctgctggca ccagacttgc ccnccaatwg 300  
ttcctcgtaa agggatttaa attgtactca ttccaattat acgacgnawa aggsccgnata 360  
ttgttacaaa ttgtcactac ctccccgngn nggcganngg ggaannngcg cgccnnnnngn 420  
mttcgtngga ngnggnagcc anntcncagg nncnnnnccg gaatngaanc gntanncccg 480  
nnaanncggn nnaannangg nngg 504

<210> 18  
<211> 293  
<212> DNA  
<213> Bos sp.

<220>  
<223> normal cow "180" clone # 180T29REV

<400> 18  
gagctcggat ccactagtaa cggccgccag tgtgctggaa ttcgccctta agcagtggta 60  
acaacgcaga gtagcgggac tggaaagtga gagtacaatg tctacaggaa ggaattcatg 120  
catggtatgc tgcagtgtgt tgagtgcgtt gttgtagggg ttaccgcgtg tgtggcaatt 180  
gtgatgatgt tggctttagt caaatgacca ggagttagtg ggtgttggtg attgtwagac 240  
aagcatggtg ctggtcgatt agtatttgta atagctgtgt ctaaaaaaaaa aaa 293

<210> 19  
<211> 410  
<212> DNA  
<213> Bos sp.

<220>  
<223> normal cow "180" clone # 180T30REV

<220>  
<221> modified\_base  
<222> (1)..(410)  
<223> n = g, a, c or t

<400> 19  
cggatccact agtaacggcc gccagtgtgc tggnaattsg cccttdagca gtggtaacar 60  
cgcagagtac gcgggtkatr rragaccaa trrdatataa drdgcagtaa aadrdrrrrd 120  
ddkratkrdn rgrkacataa agataaadkg rrgtgaaatr raagggggnt nggggbkkt 180  
kkggnknntt cngaggttnn grcaraagtt ratgggcaga aaaggkgtgn tntgncnkt 240  
ntgbktkggg cennnscbt cnnnnnecetn nnncttgngn gbkggnknns cggnnkseng 300  
nttccnnnn kbkkkkkktkb gcknantcnn tnnnacnnc gngbgggngn gnggkngggk 360  
cnneccccnc cnnnnccnnn cccgggsggn ggtgntnnga ttgntngsgg 410

<210> 20  
<211> 798  
<212> DNA  
<213> Bos sp.

<220>  
<223> normal cow "180" clone # 180T31REV

<220>  
<221> modified\_base  
<222> (1)..(798)  
<223> n = g, a, c or t

<400> 20  
agctcggatc cactagtaac ggccgcccagt gtgctggaat tcgcccttaa gcagtggtaa 60  
caacgcagag tacgcgggcc agtgatatat tcagatccta ttccttcaat gagatttcca 120  
accattcagt ttcaatatgt tcaaaaaaga agattcaagt aatcatgcac atcaaacact 180  
tttttactg atcacctctt tttttttatt cgcaaataca atcatcactt tttgttattt 240  
tccaaaggag catttttttt ctctatatatt ttactagggt aatttttagta tatattattt 300  
atkatattat atkatkatca tctgakttgg tggttctcat ggctgggtctg gttggtgctt 360  
acctgggtgat ctcttgggtt ctgttcctct ggtcttttga tctatgtcaa gtgtaattgg 420  
gncctttttt tgcttactgg tcttttgata ctgcgcaggt agccctaggc ttttcttttt 480  
ttcggcagaa tgtatacatt tgatgatgag atttattttt gaggantnat tctattcagc 540  
tcactttcta caacttcagc ttcaaacatt ttagnncgan gggacannng ngnannnaaa 600  
ttnnngaana nccanaancn caccantntg krtktnngga gratcnctnn aagagcnntn 660  
ckbntntngnn nnngaagggg aagncttnna nggggggant cnatgcnnnn nnggggnnna 720  
raaagttng anntncgttn cgttaaattg nnnnnannng gnngcnantg gggnnnnngnn 780  
ngncaaaca aaacnnnc 798

<210> 21  
<211> 239  
<212> DNA  
<213> Bos sp.

<220>  
<223> BSE cow "200" clone # 200T4REV

<220>  
<221> modified\_base  
<222> (1)..(239)  
<223> n = g, a, c or t

<400> 21  
tcgnntyaga ntecnctata tnyagcyacc agtktnmtng nnttcagcmc twtngmtatr 60  
gttnytaaga nttatttcgk gnntgktttt tncctnatt cttnngagaan ngtnntnnth 120  
tatecnctnct ggtthtnanc nnayttgncn ctgttnnkgn ttntcccynt httntttttt 180  
tcattnngnc tcntttncct nnnntgnanc nggtngnnnc cntcnnntt tnggtnncc 239

<210> 22  
<211> 741  
<212> DNA  
<213> Bos sp.

<220>  
<223> BSE cow "200" clone # 200T5UNI



<220>  
 <221> modified\_base  
 <222> (1)..(741)  
 <223> n = g, a, c or t

<400> 22  
 tagggcgaat tgggccctct agatgcatgc tcgagcggcc gccagbgtga tggatatctg 60  
 cagaattcgc csttaagcag tggtaacaac gcagagtacg cgggacagtt cckttggaat 120  
 tatagcatag aaatcgactt caaaatggct caacgtgtta cttacagaag aagaaatcca 180  
 tgtatgttta tatctaagta tgaccaggac tattgaacta taagaatgaa agagaagagc 240  
 aaaggacggg gatacgggtcc aatgagaaat ttatgacaaa atacaatacc aaatctaaca 300  
 agattaaggt tgttaagacc scagggtggt aattagttgc ccaacacgtc aagaagctcg 360  
 cttctagacc aaagtgtggt gactgtggtg atgstttaca aggtatctbt actttaagac 420  
 caagagaata cgctcaagtt tctaagaccc acaagaccgt ccaaagagcs tacgggtggtt 480  
 stagatgtgc taactgtgtc aaggaaagaa ttgtcagagc tttstctgat ccgagnacaa 540  
 aagatcggtta agggagtggt gaaaagaacaa caagataagg caaaaagtc cgcccaagga 600  
 ngaccggkaa gaaatangtt aacttaggnt tgamgctttg ttatatctag tttttggttt 660  
 tratggttct tctatgtaaa tttctttgtc gttttaatac acatttttac gttacaaaac 720  
 ggcgcgcncn nnnnnnctsg c 741

<210> 23  
 <211> 474  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> BSE cow "200" clone # 200T6REV

<220>  
 <221> modified\_base  
 <222> (1)..(474)  
 <223> n = g, a, c or t

<400> 23  
 cratccctag ataayrgcca gccantttgc tngaattcgc ccttaakmwa tagttacwam 60  
 gcagaatacg ctgggggagk yttaatttgc tgatagaaam aagatcatgc cattacactc 120  
 cancctggag caacaaagag ctaaattcct tcttaaataa ataaatagcc agatagcggg 180  
 gagctcacac ctwgttatcc cancnccttg gtaggcaaaag gctatttggt tcwyatttgt 240  
 canrattttct akaccaagcc tggccancat agtgaaacmm aaatcatcwt amataaaaata 300  
 ttctannttt taaccactgc gtagtgatng catttgcact gtaatcccag ctaacgtggg 360  
 aggcanggga ntcacctgna gccggakccg gangttttca agtaagtckn gatcagccam 420  
 tgmactccaa mmtgkggknc aaaacaatam tcagtctcgn nnnnknnnt tttt 474

<210> 24  
 <211> 589  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> BSE cow "200" clone # 200T7REV

<220>  
 <221> modified\_base  
 <222> (1)..(589)  
 <223> n = g, a, c or t

<400> 24  
 gaatccacta nataacaggc cgccagtggt mtggaattcc cccttaanma atagtaacaa 60  
 mgcagaawcg cgggggataag gaaatacaca aagaaawawr aaaammaaaa caaagggata 120

```

aaamtaccgt tttagatgaa ctttttcagc aaacttggtta ttacagatag ggaatgccaa 180
agagaggcta gattctatctt attcatcttc atatagctgg gctaaagggc atagcaaagg 240
atTTtaattt aggtcatatg atttaggggt tngcattttt tacggtagat aaatttgggg 300
tctgtrmgca tgggttngct anagaggatc taagcaggct attcagnnnt cattnnngnc 360
tnnagaacaa aagaaggscg ggtgtaatgg ctcatgccta taatcccagc acttttagaga 420
ggccgaggtr gaaggatttn tttagggcag gntttcaagn ncagcctggg cnnaccgcng 480
nccttttctc tgcaaaaatt tttatcnatt agccantnt ggtggtnent ncctgttctt 540
ngctacctta aagngggstg nnnnnnggan aattcnncct nngggttna 589

```

```

<210> 25
<211> 480
<212> DNA
<213> Bos sp.

```

```

<220>
<223> BSE cow "200" clone # 200T8REV

```

```

<220>
<221> modified_base
<222> ()..(480)
<223> n = g, a, c or t

```

```

<400> 25
ggatccacta gtaacgkccg ccagtgtgct ggaattckcc cttagcagct ggtaacaacg 60
cagagtactt tttttttttt tttttttttt ttttttaaam aatttttttw twttgagara 120
aswcacavac wctgagkgyg tyyccttcwa aacagctcam aamccaaaaa wstgcytccc 180
catttkttsw cattgcywya tcragggtag crggggggttk wttttttggc tccccccacc 240
cccactctma raagagaaaa ggggggycctk kttttwyttc mcagagtgtc krgrrrggttc 300
ccccycctst cattwtact rwmaaaaatc gttctgwcac agtgatttsy cyttcccccg 360
cgactctgcg ttttymccac tkttwagggg mrawttctga agatwtcyat cacactgggg 420
gccgctagag catacatcta ggggggcccc tncncnnnnn ngngagtggg wtcaagkbkt 480

```

```

<210> 26
<211> 801
<212> DNA
<213> Bos sp.

```

```

<220>
<223> BSE cow "200" clone # 200T9REV

```

```

<220>
<221> modified_base
<222> (1)..(801)
<223> n = g, a, c or t

```

```

<400> 26
gatccactak taacggccgc cagtgtgctg gaattytccc ttaagcagtg gtaacaacgc 60
agagtacgcg ggctaagaac tcgaatgatg cntaakctat ccaaccact ttcctcagtt 120
tttatttacg cagaaattga aattaacaaa ctaatttctg agtcttaagt gaaattgttt 180
tcgttttatt taaagttacc nttgacttac atagttttta ccttctggaa agttcttctt 240
ttttctctct ctcttctgt tcttgattgc cacactggat agaaaagttct aaatgaatac 300
ttaggtttga aagtattttt ctacatctat ttattttgcc attstacaga tttggctcca 360
ttgtcctaag gtttcagcac aataaaaatc tcgtttctcc cagtgttctg sttgacatca 420
atgtagcatt aaaaagtcca agacttttac agactaattt aagctgaaca aggaaatata 480
atctggtacc tactaagaaa cataaatggg cctgggttgc tagcagttcc tggaagtcac 540
tgtgttttcc aataaatcca tgcaatgcgt aacagggaaa gagaagccac aaagcagagg 600
ctgggactgt tgggatcatg ttagtaatta aactctctct cctcttgaga ctacagtgaga 660
gccttcctct acaaagaaaa aagtgcacac gttgctgcca aagcggatgt gacacgcgtc 720
ctctcactct aagagattaa aataaangcc tcbtgcagtc cttttctcca aatacacnaa 780

```

anaanttggc tgggctgaag g

801

<210> 27  
<211> 354  
<212> DNA  
<213> Bos sp.

<220>  
<223> BSE cow "200" clone # 200T10REV

<220>  
<221> modified\_base  
<222> (1)..(354)  
<223> n = g, a, c or t

<400> 27  
ccccdabncg sccgccantg kscgggnntk macbnnbssg cgggsskscg gcgcngagkt 60  
cggggggggg ggttgggggt ggtggaaana aatTTTTtTt atnnnnnnnt tnawmttttt 120  
TTTTTnnnt nttntTTTT tttttnttt ttntktnttt tttntntnt nttttttttt 180  
ntntntnttg gntncngggn nttttnnnt tnttggtggg tsgggcgcg ssssscccs 240  
sgcnaaatan ntccgggggt gtgggggtgt tggtnnnntk ggktgtnnnn ntttatttgt 300  
ttntntntnt ttkgttgtgt gkgkkggtgt gggggggggg gggsggcggg tggg 354

<210> 28  
<211> 734  
<212> DNA  
<213> Bos sp.

<220>  
<223> BSE cow "200" clone # 200T11REV

<220>  
<221> modified\_base  
<222> (1)..(734)  
<223> n = g, a, c or t

<400> 28  
tccactagta acggcccgcca gtgtgctgga attcgcmntt aagcagtggg aacaacgcag 60  
agtactTTTT tttttttttt tttttttttt ttttttttTt tgagtaggag ttttgmtatt 120  
tttgccagg ctggcggtgca atgggtatgat ctcgggtmac cgaaamnttc gtttTytgga 180  
ttcaggctag tcmattgcct magcctcvva agtagctggg attamaggsg ggcagmacma 240  
tgtgtgghta attttktatt tttadwaaa atggggTttc tcmatgttga tmaggvtggg 300  
htaaaactcc caacctcagg tgwTccacc gsnttggcct cvaaaattgc tgggtttaaa 360  
ggtgtgagcc aaagtgcctg gcctctgmat tagttTtyta agaawaatgg tctcaagctt 420  
aataaatgTt wttgcaaagg aaatgatcat tttttaaatg gcccacagag tattcyatga 480  
cccgcgtant ttgggttggt aaaaatgttt aaggcgggaa ttttnagata taataaaatg 540  
gggggcnttt nnaattaatt ttagagggsc cattacccta taatnantcn tnttataatt 600  
wtattntngg gagtgrtstk tataaaaatg tannntnggn aaaaaataga ngntnaaaaa 660  
aataaattnn gnktttgtcg nanntnnncn yttttncnna nntagngkn ntnnangaag 720  
ngggnnngnn nccg 734

<210> 29  
<211> 801  
<212> DNA  
<213> Bos sp.

<220>  
<223> BSE cow "200" clone # 200T12REV

<220>  
 <221> modified\_base  
 <222> (1)..(801)  
 <223> n = g, a, c or t

<400> 29  
 tcggatccac tagtaacggc cgccagtggtg ctggaattcg cccttaagca gtggtaacaa 60  
 cgcagagtac gcgggtgctg tcaactgggaa cctggacgac ttctcacttg aaaacttgca 120  
 ccacctcatg ccttccctta tcataagcct gggcaacctc ntaatattct cccctcaca 180  
 atagagacaa ggcaacctgc agtaaaagtt tgagcaaaact ggccgggagc gatgcctcgt 240  
 gcctgtaatc ccagcgcttt gggaggccga agtgggtgga tcacttgagg tcaggaattc 300  
 gagaccagtc tggccaacat ggtgaaaccc cgtctctact aaaaatacca aaaaaatgag 360  
 ctaggcatgg tggcacatgc ctgtaatccc agctactcgg aaggctgagg caggagaatc 420  
 tcttgaaccc aggaggtgga tgttgcggtg agccgagatc ctgccattgc actccagcct 480  
 gggcaacagc acgagactcc atcycaaaaa aaaaaaaaaan nnnnnnnann nnctytccgt 540  
 tgtwaaccac tgctgtaagg gggcatatct tctgtsngnt tttccatccc nntkggngg 600  
 ncmgttngnn naattnnatt tgtngnagg gccccatttt ycccccttt tnnntgnant 660  
 cnntnntayg ayattgtbas cngngscgag tggtgkkrct gwkgatnggk tnnntnnnc 720  
 ntnggggana aaacccccgt ngngngnnnw aaacaaaaa cangtnnntg gccttngnnn 780  
 nnnntccnc ntttttnncn n 801

<210> 30  
 <211> 801  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> BSE cow "200" clone # 200T13REV

<220>  
 <221> modified\_base  
 <222> (1)..(801)  
 <223> n = g, a, c or t

<400> 30  
 gcggrgccac tagtaacggs cgccagtggtg ctggaatkcg ccsttaagca gtggtaacaa 60  
 cgcagagtac tttttttttt tttttttttt ttttttcatt tgcttaactg gaaaggcggt 120  
 tccaattgat tgaatagcaa cgataactcc tcbtataatg ccagtagcta tctttttgtc 180  
 ttgctcgtct attcgatccc agcccgacaa aatggtaatt atcaaagtaa gaacgatcgt 240  
 ggtaattgtt aaccstgcat cccaacttcg attgattcgt ctgagccgag ttatttcttg 300  
 agttaattct ttaatttctt tctctaagag tttcctttgc ttctcgatta tagataaaga 360  
 ttgagtttgc attttttctc tgatttttga gctgagacaa gttttgagta aatgcacctt 420  
 gctgtgagaa acagtcagtc tgatatctac ttaagcaggc aacgcttttt cataagcctt 480  
 agcaagtttg atgtgggnatt cattctgcca atacagctct ccgttatagc caaaagcgaa 540  
 cttatcccaa tctttaagtt tgagatgaac tagcaaatct ctgttcacaa taaagttcat 600  
 catgtgtctt gcttgccaat actctcctgc aaagttttct caatgaactg ctggattgaa 660  
 tgccacacca gcagcagtna aaktgaatcc ccatgacttg nttcgagtcc aaaagatgca 720  
 ctttttatag cctgaaattc atcaaaatkc catttgmat caagtaaagc ttttatccca 780  
 ctcytgctga ccccccaaa a 801

<210> 31  
 <211> 577  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> BSE coe "200" clone # 200T14REV

<220>  
 <221> modified\_base  
 <222> (1)..(577)  
 <223> n = g, a, c or t

<400> 31  
 agctcggatc cactagtaac ggccgccagt gtgctggaat tcgccmmtaa gcagtggtaa 60  
 caacgcagag tacttttttt tttttttttt ttttttttn taaacvwawa aatktgtatw 120  
 aaaaacgaca aaraaattta catagaagat mccattaaaa accaaaaact agatattaca 180  
 aagcttcaat ccttaagtta acttatttct taccgggtctt cttggcggac tttgtcccw 240  
 tatcttggtg ttctttcaac accccnhtaa cgatcttttk ttcttcgawa aaaaaagctc 300  
 tgacaattct tyccttgaca cagtttagcac atctagaacc cccgtagcyc tttggacggc 360  
 cttnggggnc ttaraaactt gagcgnattc ccttggtctt aaagtagana aaccttgtaa 420  
 agcatcacca cagncaccac acnttggtct aaaancgacc ttcttacgtt ttgggmcaac 480  
 taatttacca cmskggggggt ctttaacgcc cgtgnccttg nanantggga awgaatnnng 540  
 ccaaaaaakn cncatttgga ccgnatcacc gncctttt 577

<210> 32  
 <211> 648  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> BSE cow "200" clone # 200T15REV

<220>  
 <221> modified\_base  
 <222> (1)..(648)  
 <223> n = g, a, c or t

<400> 32  
 gagctcggat ccactagtaa cggccgccag tgtgctggaa ttcgccctta agcagtggta 60  
 acaacgcaga gtacgcggga tacttaagtt ctgttaaagt tagcaactac tttcgtatta 120  
 aatcatcaag aaaatcacat aggccstaaw wattataaaa gaaaatatkc tataaaaagg 180  
 aatgaaatgn tgccatttgc agagacctgg atagacctag agactgtcat aagactgaat 240  
 tagtcagaaa gagaaaaaca aatatcattt gttatattat taacacataa tgtggaatct 300  
 agaaaaatgg tatagattat ctttttgcaa cacagnngtt gagacaccga ttagagaaac 360  
 atctggatgc tggkggggga aggagaaagg gggatgatgaa ttgggagatt gggattgata 420  
 tntntnccct nctngctgta agtngntaac taatgngnac stgctgtncn gcncnngggn 480  
 ntttactcag tgctctatgg tgacctcnnn tggnnnnngn ntcnbnncckg agagggggata 540  
 tatgtaaaca tatcgttgnt tccctttggc tntngggccg nnactnnccc nattttgttn 600  
 ngeccctttt ttcenntnnv ngntnnttta aatgcggggn nngaggcg 648

<210> 33  
 <211> 72  
 <212> DNA  
 <213> Bos sp.

<220>  
 <223> Alu-like sequence containing fragment from BSE cow

<220>  
 <221> modified\_base  
 <222> (1)..(72)  
 <223> n = g, a, c or t

<400> 33  
 aagatcatgc cattacactc cancctggag caacaaagag ctaaattcct tcttaaataa 60  
 ataaatagcc ag 72

<210> 34  
<211> 70  
<212> DNA  
<213> Homo sapiens

<220>  
<223> human sequence containing Alu repetitive sequences

<400> 34  
aagatcatgc cattgcactc cagcctgggc aacaagagct aaattccttc ttaaataaat 60  
aaatagccag 70

<210> 35  
<211> 111  
<212> DNA  
<213> Bos sp.

<220>  
<223> Alu-like sequence containing fragment from BSE cow

<220>  
<221> modified\_base  
<222> (1)..(111)  
<223> n = g, a, c or t

<400> 35  
gcgtagtgat ngcatttgca ctgtaatccc agctaacgtg ggaggcangg gantcacctg 60  
nagccggakc cggangtttt caagtaagtc kngatcagcc amtgmactcc a 111

<210> 36  
<211> 108  
<212> DNA  
<213> Homo sapiens

<220>  
<223> human sequence containing Alu repetitive sequences

<400> 36  
gcgtggtgat ggcatatgcc tgtaatccca gctacgtggg aggcagggga atcacttgaa 60  
gccggaagcc ggaggttgca gtaagtcgag atcagccact gcactcca 108